

Amendments to the Specification

Please insert the following paragraph after the first paragraph in the specification:

This application is related to the following patents and pending patent applications, which are assigned to the assignee of this application: U.S. Patent Application serial number 10/066,643, filed on February 6, 2002; U.S. Patent Application serial number 10/066,645, filed on February 6, 2002; U.S. Patent 6,762,076, filed on February 20, 2002 and issued on July 13, 2004; U.S. Patent Application serial number 10/695,328, filed on October 27, 2003; and U.S. Patent Application serial number 10/855,032, filed on May 26, 2004.

Please replace the first full paragraph on page 9 with the following paragraph:

The metal bonding process may be performed in a vacuum and, as a result, dielectric recess 107 can be created to surround the metal bonding areas to facilitate direct metal bonding between adjacent wafers or between die to ensure that adjacent wafers (210 and 220 shown in FIG. 2, or 310, 320, 330 and 340 shown in FIG. 3) are bonded, while maintaining electrical isolation between the metal bonding areas. The metal bonding layer 106 may include a plurality of Copper (Cu) lines on opposing surfaces of both wafers 210 and 220 that can serve as electrical contacts between active IC devices on both wafers 210 and 220. Copper (Cu) may be selected because of its low electrical resistivity, high electromigration resistance and high diffusivity. Therefore, copper (Cu) can be used for metal diffusion bonding in contrast with the commonly used Aluminum (Al). However, other metallic materials can also be used, including, for example, gold, nickel, silver, palladium, palladium-nickel alloy, titanium, or titanium nitride or any combination thereof.